

FIG. 1

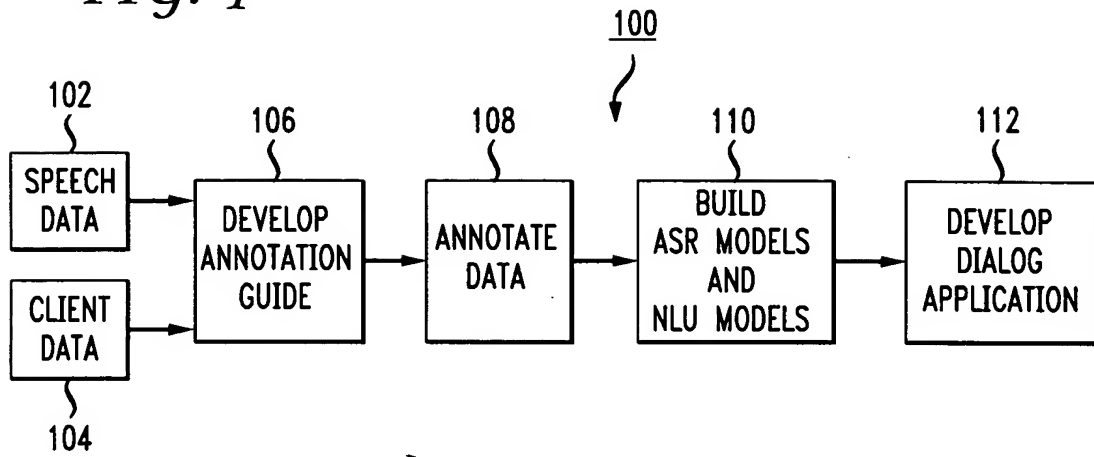


FIG. 2A

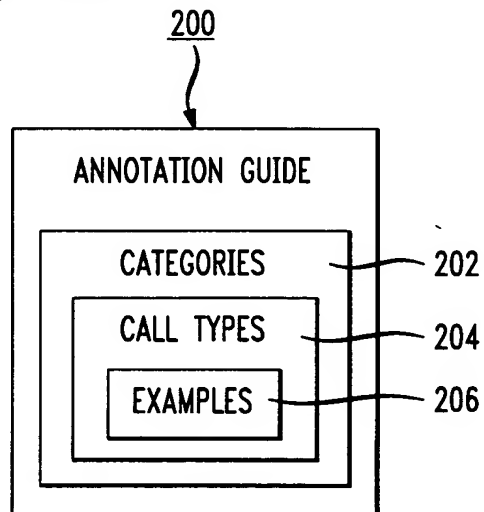
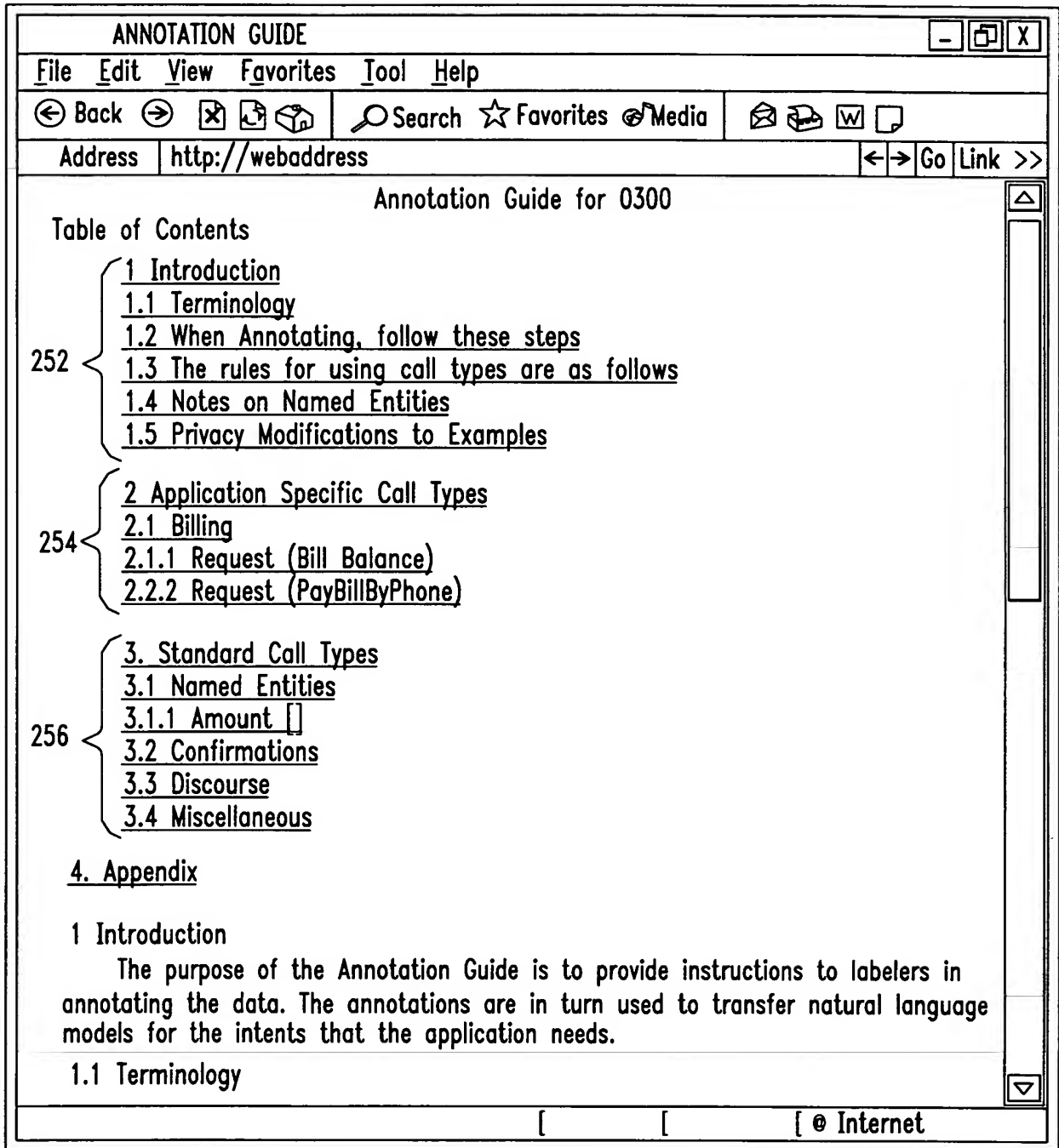


FIG. 2B

250



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FIG. 3A

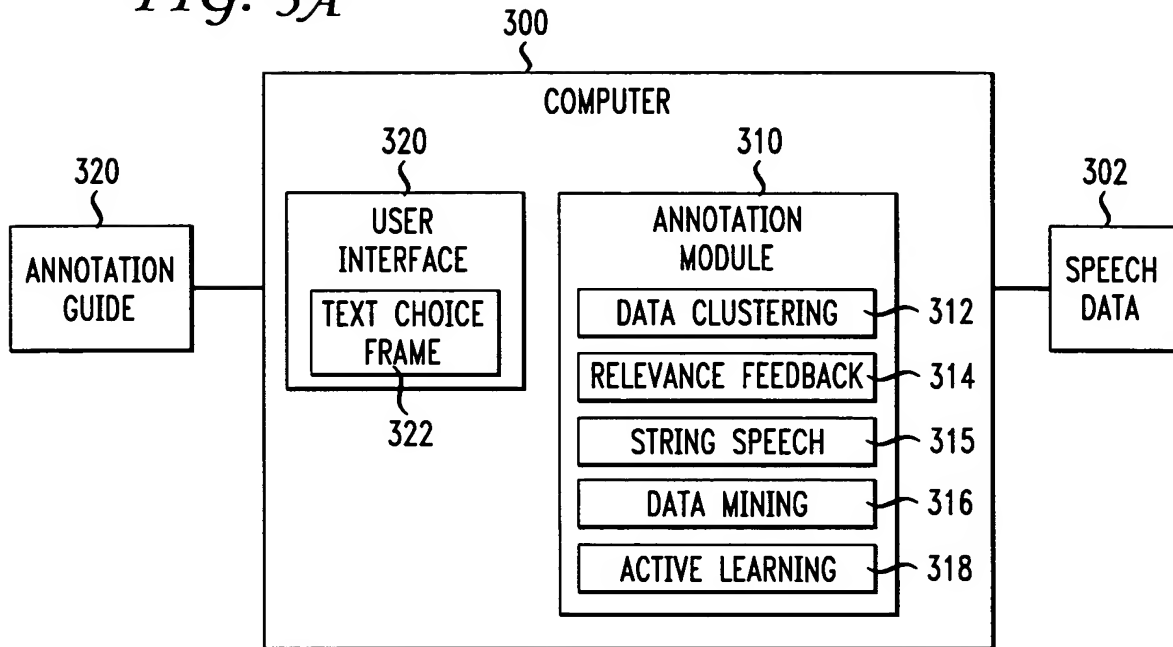


FIG. 3B

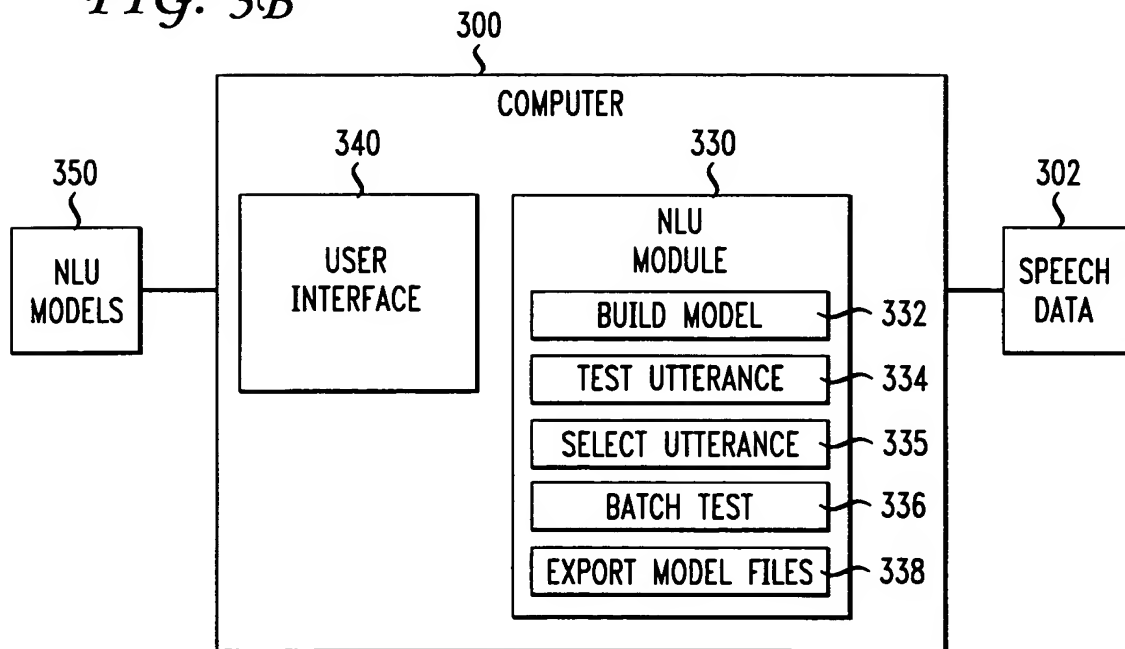


FIG. 4

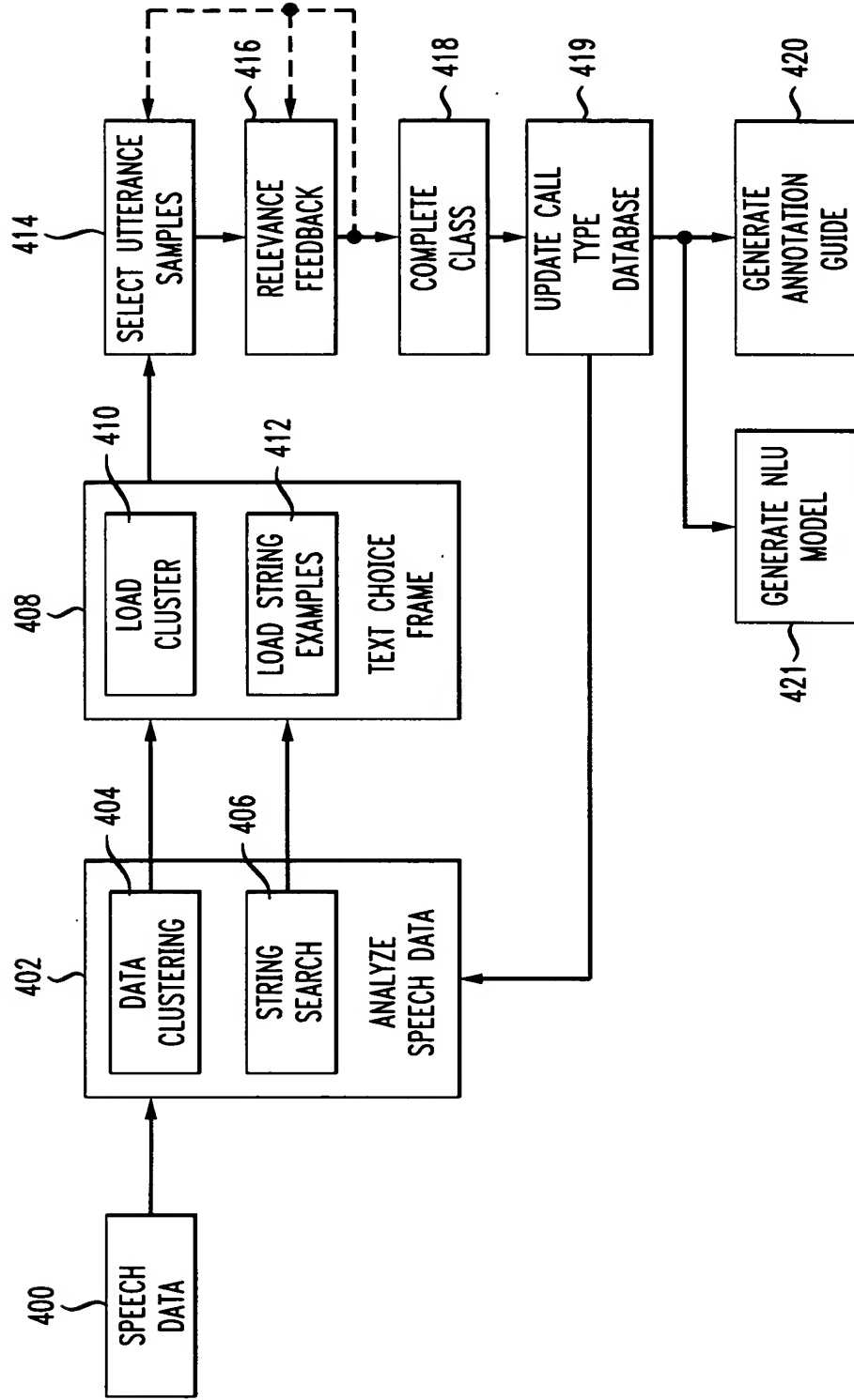


FIG. 5

ANNOMATE GUIDE

File Edit View Favorites Tool Help

Back

Forward

Search

Favorites

Media

518

Address http://webaddress

Annomate Database: 0300 User ID: 1111 2597 Calls

Generate Guide

Generate Report

Class: Working Class Description: Working Class

Search Term: null

New Search

Commit

Abandon

Delete

Cluster Mode- Initial Cluster Selection (Utterance 1-10 of 39)

85

520

522

524

508

100%

50

0

64

0.5

Ask (Info) Request (Bill) Working Class

☐ I would like to know my account balance

☐ I wanna know my balance is

☐ I'd like to know my balance

☐ I'd like to know the balance on my account please

☐ I'd like to know my balance due

☐ I would like to know my current balance

☐ I would like to know the balance on my account

☐ wanna know my balance please

☐ just wanna know my balance

☐ Skip

☐ Skip

☐ Skip

☐ Skip

☐ Skip

☐ Skip

☐ Skip

☐ Skip

Guide Example

Guide Example

Guide Example

Guide Example

Guide Example

Guide Example

Guide Example

Guide Example

Submit Selections

Clear All

Check All

Number of Samples

10

5

0

1

2

3

4

Pos

Neg

Internet

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FIG. 6

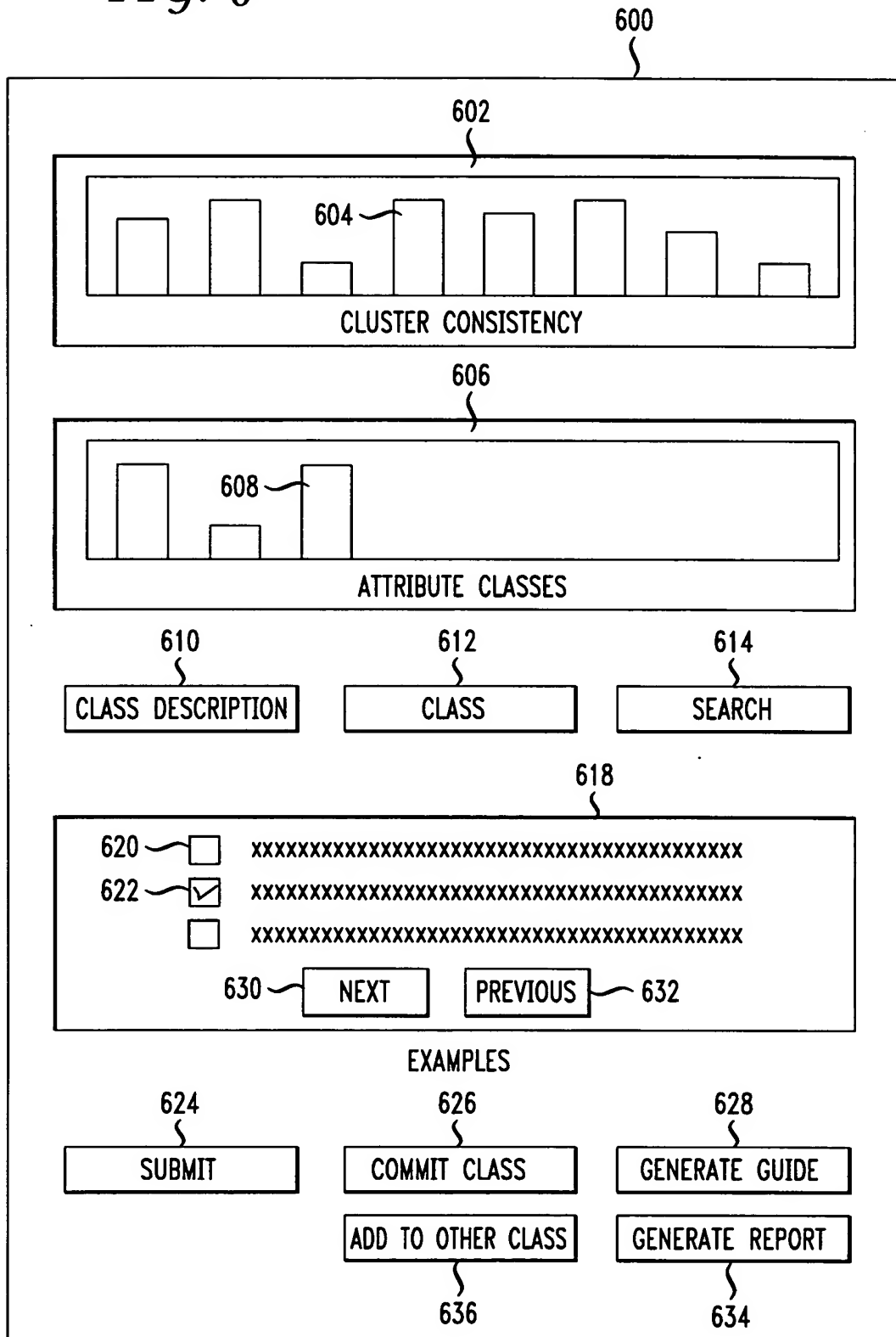


FIG. 7

ANNOMATE GUIDE

File Edit View Favorites Tool Help

Back

Search

Favorites

Media

Address http://webaddress

Database: XYZ Current User: 1114 724 722 720 718

Initial clustering Threshold: 0.075 Save Load Print Commit Name: req(refill)

Choose primary cluster: 1 req(refill)(139)*

1 I was needing to refill a prescription
ID: 0 Type: [Request(Refill)]

2 I need to refill a prescription
ID: 19 Type: [Request(Refill)]

3 I need to refill my prescription please
ID: 33 Type: [Request(Refill)]

4 I need to get a prescription refill for my wife
ID: 100 Type: [Request(Refill)]

5 I'd like to have a prescription refilled please
ID: 124 Type: [Request(Refill)]

6 I need to order a prescription a refill
ID: 129 Type: [Request(Refill)]

7 I'd like to refill my prescription please
ID: 168 Type: [Request(Refill)]

8 I usually get a recording I just need to get a bunch of prescriptions refilled

Clear all

Check all

Delete call

Skip call

Choose secondary cluster: 11 refill prescript want (26) 0.78

1 I'd like to have a prescription refilled please
ID: 124 Type: [Request(Refill)]

2 I want to refill a prescription
ID: 128 Type: [Request(Refill)]

3 I need to order a prescription a refill
ID: 129 Type: [Request(Refill)]

4 wanted to refill a prescription but i don't know if there's any refills remaining though
ID: 174 Type: [Request(Refill)]

5 well I just wanna know if I have any refills left on any of my prescriptions on our listed with y'all
ID: 190 Type: [Request(Refill)]

6 I was just wondering if there's any refills left on one of the prescriptions for my husband
ID: 220 Type: [Request(Refill)]

7 I want to refill my prescription

Clear all

Check all

Delete call

Skip call

716

700

714

708

712

702

704

710

Merge

Spit

Remove cluster

Add cluster

Copy call>>

Copy call<<

Move call>>

Move call<<

Internet

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FIG. 8A

810

Application: sbcc 816 Threshold: 0.3 814

Input:

I need to speak with a person in charge of problems 812

Classify

FIG. 8B

820

Threshold: 0.3

Utterance: I need to speak with a person in charge of problems

Call Type	Score
Request(Call_Transfer_CSR)	1

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*FIG. 9A*910

Threshold: 0.3

Number of Committed Classes: 37

Number of Unique IDs: 221

Total Number of IDs including clones: 567

912

ID	Class	Call Type	Utterance
3659	no	Request (Call_Transfer_CSR)	<u>I need to speak with a person in charge of problems</u>
461	no	Ask(Status_Account)_V	<u>is our account active</u>
784	yes	Report TroublePlacingCCCall)	<u>I have a calling card that is not working</u>

*FIG. 9B*920

Threshold: 0.3

True Call Type(s): Request(Call_Transfer_CSR)

ID: 3659

Utterance: I need to speak with a person in charge of problems

Call Type	Score
Request(Call_Transfer_CSR)	1

FIG. 10A

Threshold: 0.3

1012Click here to see classification report and overall classification metrics for all the test utterancesClick here to see NLU Model confidence scores for all the test utterances ~ 1014Click here to see NLU Model probabilities for all test utterances ~ 1016

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FIG. 10B

Click [here](#) to see summary results

Detailed Results

Number	Utterance	Truth	Above Threshold	Below Threshold
1	a person in charge of problems	Request (Call_Transfer_CSR) [1.000000]		
2	is our account active	Ask(Status_Account) [0.999995]		
3	i have a calling card that is not working	Report (Trouble_PlacingCCCall) [1.000000]		
176	i have two a t and t calling cards i want to know which card to active	Request(Status_CC) [1.000000]		
177	um i'm trying to use my calling card pin and it won't work it's um under century twenty one galaxy and uh pin number is three two nine five	Report (Trouble_PlacingCCCall) [0.999999]	Request (PIN) [1.000000]	Request(Info_International) [0.000000] Transcription_Indicated [0.000000]
178	someone directly on the phone	Request (Call_Transfer_CSR) [1.000000]		
179	inquiry about a corporate credit card	Request(Visa)[1.000000]		

FIG. 10C

Summary Results

Class	Number of tests	Overall Score
Explain(Bill_UnrecognizedNumber)	0	
Transcription_Indicated	0	
Request(Info_International)	13	0.846
Ask(Bill_CC)_V	2	1.000
Verify(Payment)	0	
Request(PIN)	41	0.919
Not(Information)	2	0.000
Request(Order_CC)	37	0.879
Request(Info_Rates)	5	0.420
Ask(Trouble)_V	5	1.000
Request(Rates_CC)	7	0.810
Request(Visa)	18	0.886
Request(Status_CC)	19	0.775
Request(Cancel_CC)	104	0.971
Request(Billing_Other)	1	1.000

